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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,258	10/15/2001	Akira Yonezawa	S004-4416	4114

7590 07/14/2004

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EXAMINER

NGUYEN, KIET TUAN

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

09/978,258

Applicant(s)

YONEZAWA, AKIRA

Examiner

Kiet T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10-12, 14-19, 22-25 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 13, 20, 21 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Rejection Under 35 U.S.C. 112, Second Paragraph***

Claims 10-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the focused ion beam" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Claim 23 recites the limitation "the focused ion beam" in line 8. There is insufficient antecedent basis for this limitation in the claim.

***Rejection Under 35 U.S.C. 102(e)***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 10-12, 14-19, 22-25 and 27-30 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/740,662 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application. No. 09/740,662

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

Yonezawa et al. (6,504,164) disclose, in figs. 1-11, an electron beam apparatus. The apparatus includes an electromagnetic lens for focusing an electron beam 1 and having a first magnetic pole 4a applied at Earth potential (see col. 5, lines 9-11), an overhang portion 4b, an excitation coil disposed in the overhang portion 4b, a second magnetic pole 3b which has a conical shape with a tip facing a sample or a bowl shape with an open end facing the first pole section and an opposite end facing the sample, an electrically insulating member 7, a magnetic gap between the tips of the first and second pole sections 4a and 3b (see fig. 2), a voltage source for applying a negative voltage to the second magnetic pole 3b and a sample 5, and an electric field lens 3a accommodated within the electromagnetic lens and applied by a zero or a negative voltage (see col. 4, lines 33-34) which is so called a bi-potential lens for superimposing a decelerating electric field onto a magnetic focusing field to reduce an aberration factor of the lens (see col. 4, lines 1-67 and fig. 8).

Claims 1-9 are allowed.

Claims 13, 20-21 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to disclose an electromagnetic field superimposed lens having an electrical field bi-potential lens which is an electrode connected to a first magnetic pole section to surround an electron beam path of the superimposed lens and a second magnetic pole section as recited in claim 1, or is a high resistance body provided between a first magnetic pole section and a second magnetic pole section to surround an electron beam path of the superimposed lens such that a potential difference exists between the first and second magnetic pole sections as recited in claim 5; a high resistance body surrounding the optical axis and electrically connecting the first and second magnetic pole sections as recited in claims 13 and 26; or a first end of an electrode field lens received in and electrically connected to the first pole section as recited in claim 20.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Frosien et al. (6,107,633) disclose an electromagnetic lens having first and second poles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet T. Nguyen whose telephone number is 571-272-

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2479. The examiner can normally be reached on Monday-Friday from 8.00 AM to 6.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee, can be reached on Monday-Friday. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KIET T. NGUYEN  
PRIMARY EXAMINER